Industrial Standardization

July

War Standards on Women's Safety Shoes

(See Article on Page 211)

1943

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Industrial Standardization

Published Monthly by

American Standards Association

29 West 39th Street, New York, N. Y.

RUTH E. MASON, Editor

Our Front Cover: This woman war worker is well-protected against industry's most common accident hazard, falling objects, by sturdy safety shoes. *Photo Courtesy Todd Shipbuilding Corp.*

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ASA

Reg. in U.S. Pat. Off.

Standardization is dynamic, not static. It means not to stand still, but to move forward together.

Subscription price $4.00 per year (foreign $5.00); Special to schools and libraries $2.00 (foreign $3.00); single copies 35 cents

July, 1943 Vol. 14, No. 7

Entered as Second Class Matter February 14, 1941, at the Post Office at New York, N. Y., under the Act of March 3, 1879.

President Roosevelt's Statement

Interprets the New Law on Standards and Grade Labeling

"I have today signed House Joint Resolution No. 147 which continues the Commodity Credit Corporation.

The bill includes an amendment to the Emergency Price Control Act of 1942 which prohibits the use of grade labeling to inform consumers, and which restricts the use of standards in maximum price regulations.

The language in the bill relating to standards is so ambiguous that misconceptions have already arisen as to its effect. The matters involved are of the utmost public concern. The legislation was adopted after only fragmentary debate. In view of the uncertainty created, I feel it necessary to state my own understanding of the amendment, as drawn from the expressed intent of its sponsors.

The language of the bill appropriating funds for the Office of Price Administration was construed as prohibiting the Administrator from making use of standards in any case regardless of how essential they were to price control unless such standards had been previously established by industry acceptance or by government action. Such a construction would cripple price control because trade standards are frequently lacking or, as in the case of the grades of meats, incompletely established.

I am satisfied this bill has no such meaning. It was presented to the Senate and House to avoid the consequences that would have followed the adoption of the language in the appropriation bill. Senator Taft, who sponsored the language in the appropriation bill and the modification in this bill, stated expressly that the modification preserved power in the Administrator to 'standardize' a commodity in any case in which this was 'absolutely essential to an effective system of fixing prices.' These assurances are in accord with the purpose and the terms of the compromise amendment and must be taken as controlling. It is with this understanding that I have signed the bill." (See article on the opposite page.)

Congress Acts in Controversy Over Standards and Labeling

THE battle regarding the Office of Price Administration's standardization and labeling activities has finally resulted in Congressional action. This is in the form of a rider to the Commodity Credit Corporation Appropriation Act which amends the Emergency Price Control Act of 1942, and which was passed by Congress on July 8, and signed by the President on July 16. (The President's statement of his interpretation of the bill appears in detail on the facing page.) Under this legislation, OPA has been denied the authority to require grade labeling of any commodity. However, the same amendment to the bill allows the OPA administrator to standardize a commodity, provided no "practicable" alternative exists for effective price control. Another provision permits OPA to use existing standards in fixing prices.

This CCC bill replaces previous action of the House and Senate devised to prevent the use of OPA appropriations "for the promulgation or enforcement of orders requiring grade labeling or standardization of food products, wearing apparel and other processed or manufactured commodities or articles"—which action had been taken without waiting for a report from the Boren committee (a Subcommittee of the House Committee on Foreign and Domestic Commerce), which has been investigating the standardization and labeling activities of the OPA since May 24 (see INDUSTRIAL STANDARDIZATION, May, page 141).

Issues of Controversy

The action by Congress marks the culmination of a long series of controversies over standards and labeling in hearings before at least six Congressional committees; in debates on the floor of House and Senate; and in actions and reversed actions by both Houses.

These controversies have revolved around a few basic questions: Are standards and grade labeling essential to effective price control? Do they destroy brand names and advertising, or can they be used, and are they being used, to strengthen brand names; make advertising more effective, and increase consumer acceptance? Are they destructive of the system of free enterprise, or do they constitute a necessary and effective step in the orderly development of our distribution system?

Sharply differing opinions on these questions have been expressed by different business groups both in the Congressional hearings and in the business press. Equally sharp differences have been expressed on the floor of Congress and in its committees. Price Administrator Brown and those members of his staff who have so far appeared before the Boren committee have stoutly championed standards and labeling as being essential to, and as being in no way harmful to, trade brands and advertising.

Attacks upon the use of standards and compulsory grade labeling in price control blazed forth when OPA announced that all canned goods must be grade labeled, and that prices of hosiery would be based on grades. (Both these orders have since been modified.) The House of Representatives ordered an investigation. Lyle H. Boren of Oklahoma is chairman of the investigating subcommittee.

The investigation got under way May 24, and the first two weeks were devoted almost entirely to the hosiery and canned goods labeling orders. Representatives of those sections of these industries that are opposed to grade labeling protested against the labeling orders, claiming that if made effective the orders would lessen production, destroy brand names, and would not save materials, labor, or productive power.

Conflicting Points of View Presented

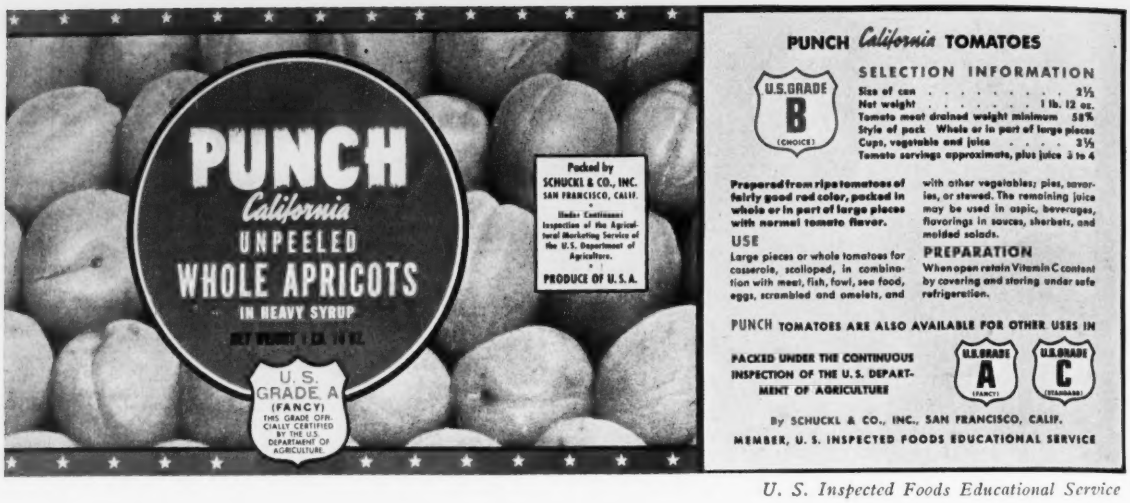
Representatives of the National Association of Hosiery Manufacturers told the Boren committee that the grading of women's hose as "A" for a minimum of value is misleading, since, they said, the standards set for Grade A are far below the quality now sold under brand names. The committee was told that regulations "are forcing consumers to large chain outlets rather than the independent merchant, . . . and that the quality of the merchandise has declined under the regulations."

Testimony contrary to that given by makers of nationally advertised hosiery was presented by a representative of the Independent Hosiery Manufacturers Association. He said he believed the standard had led to improvements in hosiery, and that it is "all-important" as a means toward achieving price control. He declared that the OPA order had been "fair to all manufacturers of my association."

Representatives of the National Canners Association and of the National Grocery Manufacturers Association strongly opposed the grade labeling program. Neither the canners who are using government inspection and labeling, nor the big food chains who are making extensive use of grade labels, testified before the Boren committee.

Some garment manufacturers also went on record as strongly opposed to standardization, and in particular to "war models."

During the hearings fear was expressed that recent Office of Price Administration price and quality regulations threaten freedom of the press through abolition of advertising. Representative Charles A. Halleck of Indiana, who introduced the resolution ordering the House investigation, declared that he believed it possible that "the philosophy behind many of the OPA regulations is actually a concealed attempt to hamper the activity of the press and the radio." Commenting on this view, *The Canners*, a trade paper of the canning industry, declared: "Before this committee (the Boren Subcommittee) one prominent canner is quoted as testifying that any grade labeling program would severely curtail national advertising. How that would happen is


PUNCH
California
UNPEELED
WHOLE APRICOTS
IN HEAVY SYRUP
U.S. GRADE A
(FANCY)
THIS GRADE OFFICIALLY CERTIFIED BY THE U.S. DEPARTMENT OF AGRICULTURE
Packed by
SCHUCKL & CO., INC.
SAN FRANCISCO, CALIF.
Under Continuous Inspection of the Agricultural Marketing Service of the U.S. Department of Agriculture.
PRODUCE OF U.S.A.
PUNCH California TOMATOES
SELECTION INFORMATION
U.S. GRADE B (CHOICE)
Size of can 2½
Net weight . . . . . 1 lb. 12 oz.
Tomato meat drained weight minimum 58%
Style of pack Whole or in part of large pieces
Cups, vegetable and juice 3½
Tomato servings approximate, plus juice 3 to 4
Prepared from ripe tomatoes of fairly good red color, packed in whole or in part of large pieces with normal tomato flavor.
USE
Large pieces or whole tomatoes for casserole, scalloped, in combination with meat, fish, fowl, sea food, eggs, scrambled and omelets, and with other vegetables; pies, savories, or stewed. The remaining juice may be used in aspic, beverages, flavorings in sauces, sherbets, and molded salads.
PREPARATION
When open retain Vitamin C content by covering and storing under safe refrigeration.
PUNCH TOMATOES ARE ALSO AVAILABLE FOR OTHER USES IN
PACKED UNDER THE CONTINUOUS INSPECTION OF THE U.S. DEPARTMENT OF AGRICULTURE
U.S. GRADE A (FANCY)
U.S. GRADE C (STANDARD)
By SCHUCKL & CO., INC., SAN FRANCISCO, CALIF.
MEMBER, U. S. INSPECTED FOODS EDUCATIONAL SERVICE

U. S. Inspected Foods Educational Service

This kind of labeling, which is used voluntarily by a large number of canners, was an essential feature of the controversy over the grade labeling of canned goods.

far from obvious. Grade labeling should increase the volume of advertising rather than curtail it. If a product has merit then it can make profitable use of advertising, regardless of the fact that a dozen other competing products are marked "U. S. Grade A." The fact that two products are Grade A does not mean that they are equal in value, and nothing can make that more understandable than well-prepared advertising."

Representative Halleck further stated that "Grade labeling is the opening gun of as sinister a move as could well be figured by the bureaucrats to despoil our economy for the benefit of the socialist system of production for use and not for profit. This lurking evil must be resisted at all costs." In reviewing this statement, *Sales Management* commented "Anyone who gave five minutes' thought to the problem would come up with many moves more sinister than this, and he could also find plenty of men and women who believe that grade labeling is quite unrevolutionary, and that the advocates are not confined to 'long-haired crackpots and visionaries with half-baked ideas.' "

During the Senate debate Senator Bone of Washington stated that "the lumber business relies on grade labeling. If a person in Kansas or Nebraska buys shingles, he finds them graded. By that means he knows exactly what kind of shingles he is buying. He knows whether they will last for 10 years or 20 years." He further stated "If we wipe out grade labeling in the lumber business we completely demoralize the business."

OPA Executives Testify

Testimony before the Boren committee on behalf of the OPA standards program started the middle of June. In a formal statement, Prentiss Brown, Price Administrator, explained that standards are used in OPA regulations for the primary and indispensable purpose of describing the article for which a ceiling price is fixed. "A better word than 'standards' would be 'specifications' or, simply, 'descriptions'," Mr. Brown stated. He further pointed out that these specifications serve a double use. First they make it possible to fix a ceiling price for an article in definite dollars-and-cents terms by providing specific descriptions of the articles involved. Second they protect against reduction in the quality of the article without corresponding reduction in price.

With regard to the second purpose that standards serve in price control, Mr. Brown explained that OPA regulations do not prohibit a seller from lowering the quality of his merchandise. They only forbid him to charge the same ceiling prices for the lower-quality merchandise that he charged before the quality was lowered. On the other hand, a seller may make and sell merchandise of better quality than the standards describe, and in that case he may apply for a higher ceiling price for the higher class of merchandise. Mr. Brown emphasized that OPA standards are merely minimum standards which establish the minimum specifications a particular article must meet if it is to command a particular ceiling price.

Standards are based as closely as possible upon the standards that are already found in business life, Mr. Brown explained. Of the 290 standards provisions which are in existing price regulations, no less than 159 are accepted trade categories. Of the 131 remaining standards, other Government agencies established 91. Only 41 of the total 290 were developed by OPA.

Several OPA price executives testified before the committee. Each stressed the inability to set adequate price ceilings without effective means of identifying products.

In a prepared statement presented at the beginning of his testimony, W. S. MacLeod, Director of the Standards Division of the OPA, vigorously took up the cudgels for the OPA program. He dealt explicitly with the various arguments which had been made against the program. He stated flatly that in all the previous testimony no factual evidence had been presented to show that the use of standards or grade labeling had actually ever injured trade brands or decreased advertising. He presented exhibits showing instances in which their use had resulted in increased advertising, and other exhibits designed to show deterioration of products without corresponding price decreases.[1]

[1] An extensive abstract of Mr. MacLeod's statement will be found on the opposite page.

No announcement has yet been made as to whether the hearings of the Boren committee will be continued. It is expected that none will be held at least until Congress reconvenes in September.

The Congressional action which closes one chapter in the controversy by requiring modification of the OPA program of standards and grade labeling reads as follows:

"Section 6(a)—Section 2 of the Emergency Price Control Act of 1942, as amended, is hereby amended by adding at the end of thereof the following new subsection:

"(j) Nothing in this act shall be construed (1) as authorizing the elimination of any restriction of the use of trade and brand names; (2) as authorizing the administrator to require the grade labeling of any commodity; (3) as authorizing the administrator to standardize any commodity, unless the administrator shall determine, with respect to such standardization, that no practicable alternative exists for securing effective price control with respect to such commodity; and (4) as authorizing any order of the administrator fixing maximum prices for different kinds, classes, or types of a commodity which are described in terms of specifications or standards, unless such specifications or standards were prior to such order, in general use in the trade or industry affected, or have previously been promulgated and their use lawfully required by another Government agency."

It is understood that the legal department of the Office of Price Administration is making a further intensive study of the apparent conflict between subsections (3) and (4) of the provision.

The *Journal of Commerce* in summing up the entire situation comments: "It is probable that many bitter controversies between industry and Congress, on the one hand, and Government administrators on the other, will result from the terms of this legislation."

Statement of W. S. MacLeod, Director, Standards Division of the Office of Price Administration, before the Boren Subcommittee.

MR. MACLEOD identified himself as an industrial mechanical engineer, now Director of the Standards Division of OPA. For 17 years he had been employed by the Standard Oil Company of New Jersey, and during the last eight years of this period he was in charge of standards work. Some 50,000 items had been covered by the standard purchase specifications of the Company.

The following is a condensation of Mr. MacLeod's statement before the Boren committee:

The Standards Division of OPA acts in the capacity of engineering consultants on commodity quality problems to the Operating Divisions. I should like to make the following points:

1. That hidden price increases through quality deterioration constitute a problem with which OPA must deal.

2. The use of standards and quality labeling as yardsticks of prices is a widespread and well-accepted practice of industry and trade.

3. In the cases in which OPA has placed standards in price relations, the standards are consistent with the productive facilities available to industry and the quality factors of importance to consumers.

4. The standards included in price regulations are minimum standards and do not regiment production or result in products of identical design.

5. The experience of industry with OPA regulations containing standards and labeling provisions, as well as with grade labeling adopted by industry and trade voluntarily, shows that manufacturers continue the use of brand names and advertising.

Quality Deterioration—Inflation comes either through a rise in money prices or through a lowering of quality. If a pair of shoes bought this year wears only half as long as a pair bought last year, the cost of shoes to a worker has doubled as truly as though he had paid twice as many dollars for the shoes. The difference is that the rise in the cost of living caused by quality deterioration is usually not apparent at the time of purchase. It is hidden from the consumers.

With no intention of singling out any particular industry, I should like to illustrate this fact by a number of specific cases.

Exhibit 1—Shoes which show 30 per cent quality deterioration between 1941 and 1943, (in large part war induced). This is a 42 per cent hidden price rise.

Exhibit 2—Child's rayon dress sold this spring at about $4.00. Unusable after first washing due to poor fabric construction. Value of consumers dollars spent practically nil.

Exhibit 3—Child's sunsuit. Yarn dyed red stripe. Color bleeds excessively in plain cold water. Garment cannot be washed satisfactorily.

Exhibit 4—Utility zipper bags. Four bags which reveal drastic quality deterioration and price rise. One sold in 1942 at $1.98, well-made and relatively durable. Nearest similar bag found in current market would sell in comparable outlet at $4.69 and the quality is lower.

Exhibit 5—Typical changes in quality of rayon dresses. Compiled from statements of representatives of retail central buying offices in New York City. Reveals that garments of qualities sold in given 1942 wholesale price lines are now being sold in higher wholesale price lines.

In important cases, such as the rubber, shoe, and metal working industries, a substantial degree of the quality deterioration is forced by wartime material shortages, for which manufacturers are, of course, not responsible.

Standards Widely Used in Industry—The necessity of relating price to quality is not an idea born of OPA's problem; nor is it a "reform." OPA has only adapted a well-established peacetime trade practice to wartime regulations. In 1941 there were 450 National Technical Societies and Trade Associations carrying on standardizing activities[1]. In NRA days, 245 of the 556 approved codes written by representatives of the indus-

[1] "The Standardization Activities of National Technical and Trade Organizations," National Bureau of Standards Miscellaneous publication, M-169, page 2.

ARE QUALITY STANDARDS NECESSARY IN PRICE CONTROL?
THIS EXHIBIT SAYS "YES"!
THESE SHOES
1. WERE MADE BY THE SAME MANUFACTURER
2. WERE SOLD AS THE SAME STYLE NUMBER
3. WERE SOLD AT THE SAME PRICE
4. LOOK THE SAME
MADE IN 1941
MADE IN 1943
BUT -
THE 1943 SHOE WILL GIVE 30% LESS WEAR THAN THE 1941 SHOE
THIS IS A 42% INCREASE IN THE COST OF THE 1943 SHOE TO CONSUMERS. DUE SOLELY TO THE DETERIORATION OF ITS WEARING QUALITIES
IT IS A HIDDEN PRICE INCREASE

The pictures on this and the opposite page show some of the exhibits presented in Mr. MacLeod's testimony.

tries, contained provisions for, or reference to, established standards or grades and labels. In 1940, 46 federal agencies were concerned with the development or use of standards and specifications, or in tests and basic research leading to their development.

In addition to the use of standards in buying, as a normal trade practice, the use of labels to identify the quality of the product is widespread, at retail as well as at wholesale. Many concerns such as Sears Roebuck, Montgomery Ward, the A & P, retail cooperatives and other retailers have voluntarily developed and used labels based on standards which reveal the quality of many of the commodities they sell. Manufacturers of nationally advertised branded products have also followed this practice. Examples are: Pepperrell sheets, Chatham blankets, Pacific Mills sheets and fabrics, Viscose Crown Tested Rayon, and the "sanforized" process of preshrinking fabrics.

There are 63 canners, comprising 82 plants, selling under their own advertised brands, who have voluntarily arranged for their products to be graded by federal inspectors under the continuous inspection service of the Department of Agriculture. All of these have agreed to label some portion of their total production.

Quality labeling, including grade labeling, is commonly used to identify industrial goods made in conformity with recognized standards. Of the standards published and developed by the American Society for Testing Materials, the American Standards Association, and the National Bureau of Standards, 285 have quality and quantity labeling requirements. Of these 63 are grade labeling requirements.

OPA Standards Conform to Trade Practices and Buyers' Requirements—It is natural then, as the Administrator has stated to the committee, that by the greatest portion, 159 or about 55 per cent of the 290 standards provisions used in price regulations are accepted trade standards; that the next largest number, 90 or about 30 per cent, are standards established by government agencies other than OPA; OPA has established only 41 or less than 15 per cent of the total. I would like to elaborate this briefly. Of the 90 established by other government agencies, many were well accepted by the trade before they were included in price regulations. For example, many of the food standards developed by the Department of Agriculture were in use by a portion of the trade before the war. As for the 41 standards provisions established by the OPA, the individual specifications and the data from which the standards were developed were taken from accepted trade practices. Furthermore, OPA standards were developed with the aid of technically qualified people in other government agencies and in industry. In a very real sense, all standards used in price regulations are based upon trade practices.

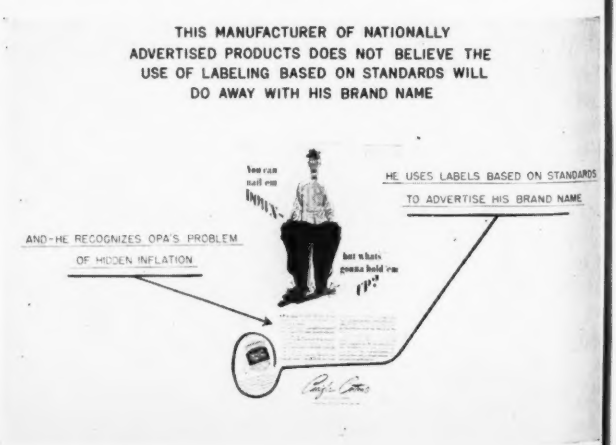
Wherever suitable quality standards are in use by the trade, OPA uses them as they are. If no trade or government standards exist, and if it is not feasible for another established agency to develop the standard, we develop it with the aid of all interested parties. We have often called upon the Department of Agriculture, the National Bureau of Standards, and the American Standards Association to develop standards for us.

The Department of Agriculture has either developed new standards or revised their existing ones in order to cooperate with OPA in 10 major commodity groups including Dairy Products, Meats and Poultry. Within the past year we have requested the National Bureau of Standards to develop nine standards including men's and boys' shirts, shorts and pajamas; work clothes, women's rayon hosiery and slips. The National Bureau of Standards has also completed 49 testing projects for us to gather data necessary either for use in the development of standards or for purposes of determining the measure of compliance with the quality provisions of regulations.

The War Production Board and the Office of Price Administration recognizing the desirability of converting the outstanding non-governmental national standardizing agency to war work, jointly entered into a contract with the American Standards Association. Under the terms of this contract the OPA has requested the American Standards Association to proceed with four projects.

The OPA cooperates closely with the Conservation Division, the Office of Civilian Requirements, and the Industry Divisions of the War Production Board in its standards activities. Our aim is to insure that the needs of both agencies are taken into account in the development and use of standards and at the same time to avoid duplication of effort. This is true regardless of whether the standards are used in price regulations or in conservation and limitation orders.

Standards in Price Regulations Are Minimum Standards and Do Not Regiment Production—I want to place special emphasis on the fact that the standards included


THIS MANUFACTURER OF NATIONALLY ADVERTISED PRODUCTS DOES NOT BELIEVE THE USE OF LABELING BASED ON STANDARDS WILL DO AWAY WITH HIS BRAND NAME
HE USES LABELS BASED ON STANDARDS TO ADVERTISE HIS BRAND NAME
AND-HE RECOGNIZES OPA'S PROBLEM OF HIDDEN INFLATION

DO STANDARDS AND GRADE LABELING
DO AWAY WITH BRAND NAMES AND ADVERTISING?
THIS GOODYEAR AD SAYS "NO"!
GRADE LABELING is highlighted in the manufacturer's advertising appeal
THE STANDARD GRADE along with the brand name appears on each heel - from manufacturer to consumer
Know your GOODYEAR V's
BRAND NAME, as usual, is featured on the label of the product where both shoe repair men and consumers can see it
MAXIMUM PRICES are shown for three standard grades. These prices are uniform nationwide ceilings for rubber heels, attached.
EFFECTIVE SEPTEMBER 1, 1942, UNIFORM DOLLAR AND CENT MAXIMUM PRICES BASED ON STANDARDS WERE ESTABLISHED BY MPR NO. 200 FOR 4 GRADES OF RUBBER HEELS. SALES TO WHOLESALERS, SHOE REPAIRMEN AND TO CONSUMERS (ATTACHED) ARE COVERED. THE MANUFACTURER MUST MARK THE GRADE ON EACH HEEL.

in price regulations do not force manufacturers to produce an identical or uniform commodity. They are minimum requirements only, used for purposes of classification and allow the production of a wide variety of constructions, styles, colors, and designs.

For example, the regulation covering Douglas Fir Doors in which the Maximum prices are based upon the four grades of the National Bureau of Standards Commercial Standard, CS-73. This standard defines the basic construction requirements for some 26 types such as cupboard doors, house doors, garage doors, and interior doors. It stipulates approximately 169 standard sizes and shows a wide variation of planeling, grading, and other architectural variations.

Under these standards doors can be, and *have been*, made which will fit appropriately into virtually all commonly used architectural and interior decorating designs.

A case of more interest to this committee is rayon hosiery. The standards contained in the rayon hosiery order, recognize, for full-fashioned hosiery, at least 22 combinations of gauge and denier. The exercise of these options indicate a possible variation in hosiery manufacture of approximately 2600 arrived at as follows:

Twenty-two basic combinations, each of which may be made in

2 kinds of heels
3 lengths
5 colors (allowed by WPB)
Rayon or cotton heel construction and
Rayon or cotton welt.

For circular knit hosiery, as differentiated from full-fashioned, the regulation allows about 16 basic needle counts and denier classifications, five color variations, and a choice of rayon or cotton welt. There are about 160 varieties possible in circular knit rayon hose.

In addition to these plain knit types there is a wide variety of mesh or lace leg construction which can be made. More than 3000 different variations in hosiery can be produced within the scope of the specifications of the WPB and OPA orders.

An article in *Women's Wear Daily* of Friday, June 4th, by James T. Teague, hosiery editor, confirms the fact that hosiery under the regulations will not be standardized into a single mold. He says:

"Style distinctions exist and should flourish at the hosiery counter under General Limitation Order L-274 as amended by the War Production Board. Little has been taken away and much has been added. Most of the technical refinements of seam, heel and toe are required procedure. At welt and foot the average stocking is more durable. "Sleazy" merchandise is virtually ruled out by a series of minimum specifications.

"In short, the buyer and merchant need feel fewer qualms on the score of returns, more confidence in ultimate consumer satisfaction. Operations of the hosiery department, one of the most profitable of the average store, will be on a still sounder basis.

"Something will probably have to be done, in the way of education, by those stores in centers where the public mind was confused by stories that the Government was standardizing stockings into a single mold of heavy fabric and skimped length. That impression was carried on the wave of attacks against the Office of Price Administration and its rayon hosiery order No. 339, in which price classifications were the chief issue. Such reports were not founded in either the standards established in MPR-339 or the War Production Board's Order L-274."

I am sure we would agree that Mr. Teague represents informed industry opinion.

These cases demonstrate the fact that standards in price regulations are minimum standards and do not regiment production or result in products of identical design.

Manufacturers Continue Their Brands and Brand Advertising for Products Grade Labeled According to OPA Regulations—I would now like to discuss a question in which, I take, the committee is vitally interested—that is, "Does the use of standards and grade labeling in wartime eliminate brand names and advertising?"

The committee has heard a great deal of testimony which bears on this question. That testimony has been based on fears of what *may* happen rather than on factual evidence. In the belief that the committee would like to have facts based on experience, I felt it would be useful to look at the record.

In the first place, from my own experience, I know that a great many industrial products are produced and sold according to quality standards, are grade labeled, and also carry brand names. These products are widely advertised by brand name, as a perusal of almost any trade magazine will reveal.

In the consumer goods field, a number of prominent food chains have sold their brands of canned fruits and vegetables under labels which show the grade, in

DO STANDARDS AND GRADE LABELING DO
AWAY WITH BRAND NAMES AND ADVERTISING?
THESE BED SHEETS ARE:
NATIONALLY ADVERTISED-
AND ARE LABELED ACCORDING TO GRADE
DEQUOT SHEETS
Lady Pepperell

addition to the brand name. These chains advertise their brands widely.

The 63 canners mentioned before, who voluntarily use grade labeling in connection with the continuous inspection service of the Department of Agriculture also sell their products under brand names which they feature in their promotional activities.

There are two OPA regulations which give us a basis for judging by experience the effect of standards on brand advertising. On March 2, 1942, a price regulation on bed linens became effective. In September of the same year, manufacturers began producing rubber heels under the terms of a new price regulation.

These regulations contain many of the characteristics that have evoked so much discussion before this committee. Both contain uniform dollars-and-cents ceilings based upon quality standards. Both require that the product be grade-labeled by the manufacturer. If the use of standards and grade-labeling eliminates brand names and advertising, one would expect that sheets and rubber heels sold today would be sold unidentified by brands. One would assume that manufacturers would find it undesirable or unnecessary to advertise their products to the public. But what does the record show?

This exhibit shows an advertisement for Goodyear G-50, Wingfoot, and Resolute brands of rubber heels. It is one of many advertisements which Goodyear has been running. It features grade labeling according to OPA price regulations, the brand names, and the uniform dollar and cents prices for rubber heels attached.

The story is similar for Biltrite, United States Rubber, O'Sullivan, Hood, Cat's Paw and Essex. It is interesting to note that the O'Sullivan advertisement tells the reader that they advertise over 42 radio stations and nine famous magazines. The Biltrite advertisement features the fact that Biltrite rubber heels are "nationally advertised in over 50 leading magazines."

This exhibit shows labels taken from the products of four prominent manufacturers of nationally advertised and branded sheets; Pacific Mills, Pequot, Lady Pepperell and Cannon. It also shows advertisements which appeared this year in prominent magazines. As you can see, the grade designations—Type 140, Type 128, etc, are shown in small type on the labels. The brand names continue to be featured, both on the labels and in the advertisements.

The expenditures of two of three companies, Pepperell and Pequot, for magazine, radio and farm journal advertising, increased from $240,838 in 1941 to $267,479 in 1942 . . . the year during which the grade labeling requirement of the price regulation was in effect. Figures are not available for 1943—but the advertisements shown in the exhibit all appeared this year. It is apparent from the record that manufacturers of sheets still feature their brand names, and still advertise them widely in national publications.

In conclusion, I am convinced that a study of the facts reveals that when we use them, standards are based as squarely as possible on trade practices. They are minimums only, and therefore do *not* regiment manufacturers or force the production of identical products. We can find *no* evidence, either in the experience of industry with standards and grade labeling over the past two decades, or in the experience under OPA regulations, which supports the contention that such use leads to the discontinuance of brand names and advertising. On the contrary all the evidence shows that brand names and brand advertising has continue The most reasonable conclusion is that the use of stanc ards and grade labeling complements brand names anc advertising.

Navy Issues Revised WPB Definitions

A NEW edition of its *Handbook of Definitions*, just issued by the Conservation Division of the U. S. Navy Department, brings this list of standard definitions for materials and end products in "M" and "L" orders up-to-date through March 1, 1943. The definitions are in the nature of standards on which the WPB orders are based, and have been prepared for use by the agencies in the Navy charged with design, specification, requisition, production, inspection, and salvage of Navy materials. Although prepared for the Office of Procurement and Material of the Navy, the definitions included in the *Handbook* are also of value to industry and others concerned with the war effort.

The *Handbook* is made up of two parts. Part I contains definitions specified in "M" orders; Part II contains those in "L" orders. The "M" orders are the General Preference, Conservation, Import, Inventory, and other orders issued by the WPB covering the conservation of supply and the distribution of materials, usually raw materials. The "L" orders are the General Limitation Orders, which limit the production of certain items, especially consumers' durable goods.

The definitions are listed in each part in alphabetical order, and cross references are provided to facilitate the use of the book. The term defined is given first, followed by the WPB order number and title in wh the definition is used. The definition is then c as stated in the last amendment to the order, if any, a of March 1, 1943. When several definitions of the same material or end product, though differing slightly, are given in different orders, each definition is cited separately under the corresponding WPB order. When several definitions of the same material or end product are stated in the same order or its supplement, the reason is given in a footnote.

When a definition refers to lengthy tables or schedules, the material is not given in the *Handbook*. However, in each case a reference is made in a footnote to the volume, number, and page of the *Federal Register* in which these tables or schedules appear.

The *Handbook of Definitions of Materials and End Products* was prepared under the direction of Samuel P. Kaidanovsky, chief of the Consumer Standard Section, Food Distribution Administration, U. S. Department of Agriculture.

The *Handbook* has proved so popular that the supply of copies was exhausted within a couple of days after it was released.

A copy of the *Handbook* is on file for reference purposes in the American Standards Association library

War Standards on Women's Safety Shoes

by Major E. R. Granniss[1]

Chairman, ASA War Committee on Protective Occupational Footwear (Z41)

Lehigh Safety Shoe Company

THE publication of specifications for protective occupational footwear for women marks the completion of standards for all types of men's and women's safety footwear made with leather uppers and leather or rubber compound soles which ASA War Committee Z41 considers essential to service industry adequately for the duration.

The Committee on Protective Occupational Footwear (Z41) was reactivated by the ASA as a war committee when the WPB and the OPA indicated that safety shoes were becoming increasingly essential on the production front, and requested the Association to develop standards as rapidly as possible.

After completion of standards for men's safety shoes, the committee was confronted with the problem of establishing standards for materials, construction, and workmanship on women's protective footwear, a classification of safety shoes that had never been produced commercially.

A survey showed that four million women were working in war plants by the end of 1942—19 per cent of all workers in heavy industry!

The most common accident hazard, falling objects, caused a man-hour loss in 1942 that might have added to our war armaments one battleship, 5 destroyers, 450 bombers, 200 tanks!

Despite the need for adequate foot protection against falling objects, the safety shoe industry was faced with limitations of materials, equipment, and labor that badly hindered needed types of footwear.

The committee, however, knew the problem created by the wrong type of shoes from the experience of safety engineers who were members. It found, for example, that the lighter-weight toe-boxes of plastic and fiber had been useful, but that they were still incapable of replacing steel where a definite degree of protection was required. Moreover, its inquiries into the field of men's safety footwear had resulted in the development of broad principles of foot protection and shoemaking techniques and standards applicable to women's shoes as well as men's. It knew, from its government and industry members, just what materials could be expected to be available.

The committee's activities in data gathering, discussion, review, and editing extended throughout a good part of the country. West Coast shipyards were contacted directly in regard to their needs in the field of welder's type safety shoes for women. A representative of the Gulf Coast yards attended a subcommittee meeting in the Mid-West. Eastern shipyards and sectional industry representatives contributed their views.

Shoe Manufacturers Cooperated

Women's shoe manufacturers pooled their knowledge and techniques and ingenuity to help guide the program through rough spots. Manufacturers of steel toe-boxes met with a subcommittee at a New England steel plant to help decide the thickness and composition of the steel which could be expected to provide the desired protection, and which would not cause new problems in allocation of metal or even indirectly necessitate needless re-tooling. Shoe interests cooperated with the committee in experimental production, and laboratories tested completed shoes for impact and compression resistance of toes.

It can now be revealed that the initial experimental shoes only withstood a compression test of 700 pounds. Today test results regularly indicate resistance of over 2,000 pounds using the same steel, and there is hope of obtaining even greater strength. These improvements were the result of modifications in shoemaking technique based on the problem introduced by fitting the high steel toe-box into a last that was designed to be attractive and comfortable. A simple engineering principle of reinforcing the foundation accounted for the increase in strength without changing the appearance of the shoe in any respect.

Through this development, too, ran the theme of making specifications applicable to as many shoemaking processes as possible and practicable, so that pro-

[1] Chief, Accident Prevention Section, Production Security Branch, Internal Security Division, War Department, Office of the Provost Marshal General.

duction of any needed quantities would be simplified. At the same time, the committee kept in mind the OPA's objectives of making commodities available to the consuming public at as low a cost as possible, while providing for the optimum utilization of materials, equipment, and other resources.

It may be of interest to note briefly how the committee attempted to expand the area of interest in these shoes so that more and more specialized assistance might be forthcoming.

When sufficient groundwork had been laid, the committee reviewed the information compiled. It conducted tests where necessary; it consulted with industrial groups, with users, with Army and Navy engineers, and with government executives. Finally, it was able to draft tentative standards.

Many Different Groups Consulted

Some 115 groups were canvassed for comments, criticism, and suggestions. Those canvassed included 43 manufacturers, 23 industrial users, 18 casualty insurance companies, and 26 miscellaneous groups. They were asked to comment specifically on any parts of the tentatively proposed standards in which they were interested, or which affected them in any way.

The suggestions received, and there were many, were discussed at length. In some instances pertinent changes were adopted. Other suggestions had previously been discussed in one form or another in committee. In still others, provocative points of view were expressed, which necessitated further study by subcommittees. As an example, the committee's attention was repeatedly called to new developments in plastic- and fiber-toe shoes for which claims of high resistance were being made, and which might well be a useful part of the standards.

A subcommittee appointed to gather all the facts found that these shoes, though they could not offer the same degree of protection offered by steel toes, were worthy of continued study, to the end that standards for this group of footwear might be set, and the functional utility of the shoes outlined for use where desirable. It evolved that this group of hard-toe shoes was not acceptable for general industrial use. The subcommittee appointed to study this is continuing its work and has uncovered much useful information helpful to industrial users, shoe manufacturers, and government. The work of this subcommitte may well lead to additional standards.

Five types of safety shoes for men and five types for women make up the series of standards just completed by the ASA War Committee on Protective Occupational Footwear (Z41). Safety-toe shoes; explosives-operations (non-sparking) shoes; conductive shoes; electrical-hazards shoes; and foundry (molders) shoes have been included in the series for men. For women, two types of safety-toe shoes (oxfords and high shoes); explosives-operations (non-sparking) shoes; and conductive shoes are given.

The standards have been published in two volumes, one including the five standards for men's safety shoes, and the other including the standards for women's safety shoes. Each volume is available from the American Standards Association at 40 cents.

The standards for safety shoes were then ready for final approval. Committee Z41 was confident that the specifications had received full consideration and would fulfill the objectives set by the government. The committee was confident, too, that it had acted in accordance with the highest ideals of engineering effectiveness and impartiality.

The completed standards list and establish minimum standards for the materials of construction, method of assembly, and general workmanship. They include testing requirements and bear labeling provisions for each type and classification of footwear. (In the case of conductive shoes and explosives operations [non-sparking] shoes, they provide for a contrasting color tongue or tip for ready identification of type.) In addition, they include suggested shoemaking technique for achieving the desired standards.

It is of interest that these women's safety-shoe standards, although primarily concerned with details of workmanship and materials of construction, also prescribe a style and color for the approved model as well. This is in keeping with the principle laid down by the OPA and WPB, in requesting standards for the smallest number of types of shoes necessary to service industry effectively.

Large Savings Effected

It may appear to the casual observer that the savings effected through prescribing style were nebulous. However, it was pointed out to the committee that no manufacturer owned a last (a wooden shoetree-like form over which shoes are built) that could receive the steel toe. Hence all manufacturers who entered the field would have to apply to the WPB for permission to purchase new lasts, for these had been frozen by a previous order. Since differing patterns and designs in shoes usually require different lasts, it can be seen that by specifying one design, all manufacturers could order the same last, sparing themselves the problem of maintaining an inventory of multi-styled lasts. This spared the last makers an increased burden at this time, and simplified the mechanics of approval of new last purchases by the WPB.

Since style affects fit, which is of greater than usual importance in steel-toe shoes, a well worked out design is of more than casual interest to the consumer. Obviously, the sorely pressed plant commissaries, which distribute safety shoes, are assisted by the reduction in inventories, effected by limitations in style and color.

At this writing, women's safety-toe oxfords are in large production. The other classifications of women's safety shoes—women's safety-toe (high) shoes, women's conductive shoes, and women's explosives-operations (non-sparking) shoes—are just about ready for delivery where needed. It is expected that all the various types of women's safety shoes will continue to be improved in production as increasing skill comes with experience.

New War Standard Is First In Series on Resistors

FIRST of a series of war standards for resistors is the new American War Standard External Meter Resistors (Ferrule Terminal Styles) (C75.5-1943) which was approved by the American Standards Association on June 21, 1943.

This is the fifth standard arrived at under the supervision of the ASA War Committee on Radio (C75). The WCR Subcommittee on Resistors and its task groups are now engaged in drawing up six other standards for various types of fixed and variable resistors which are expected to be completed before the end of the summer.

This new standard covers cylindrically shaped wire-wound resistors used as external resistors for voltmeters, or in other high-voltage applications in electronic apparatus for which they are suitable. These resistors are all rated as 1 kilovolt per megohm and are furnished in three standard sizes: the MFA, from 3½ to 6 megohms; the MFB, from 1 to 3½ megohms; and the MFC from ½ to 1 megohm.

The performance requirements incorporated in this new standard are those found necessary by the Armed Forces for resistors wound with very fine wire and subjected to salt and highly humid atmosphere for long periods of time.

Navy Department Specifications for Fixed Precision Multiplier Resistors, RE 13A 590A, formed the basis from which the Task Group on Accurate Fixed Wire-Wound Resistors of the War Committee on Radio worked in the development of this standard.

It is expected that this new standard will replace that specification when the American War Standard for Electrical Indicating Instruments (2½- and 3½-Inch, Round, Flush-Mounting, Panel-Type) (C39.2-1943) is revised. The new standard has already been approved for use in lieu of existing specifications by the Signal Corps Standards Agency.

The group active in drawing up this standard was headed by Leon Podolsky, Sprague Specialties Company. Its membership included B. R. Boymel, Navy Department, Bureau of Ships; Paul S. Darnell, Bell Telephone Laboratories; R. A. Henderson, RCA Victor Division, Radio Corporation of America; John H. Miller, Weston Electrical Instrument Company; Frederick Mitchell, Shallcross Manufacturing Company; A. M. Okun, Aircraft Radio Laboratory, Signal Corps Aircraft Signal Service; Emil Reisman, International Resistance Company; H. J. Schmitz, Western Electric Company; George R. Sparks, Camp Evans Signal Laboratory, Signal Corps Ground Signal Service; R. S. Stanton, Radiation Laboratory, Massachusetts Institute of Technology; and S. L. Chertok, ASA staff, secretary.

Weston

Standard external meter resistors like these are now used extensively by the Armed Services.

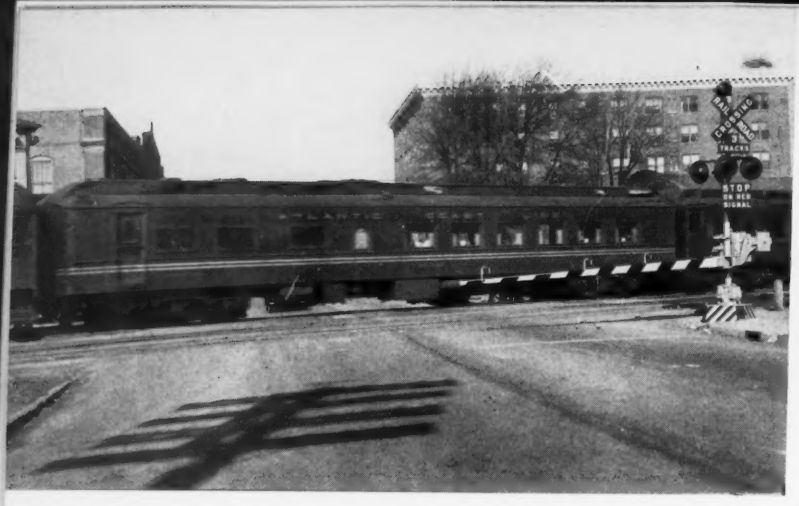
Australian Delegates Study Quality Control

R. G. MOORE, manager of the Commonwealth Government's Ammunition Factory at Footscray, Victoria, and A. L. Stewart, an engineer on the staff of the Standards Association of Australia, are visiting the United States as representatives of the Australian Government, in order to study the development and application of statistical methods of quality control in this country. The two delegates are cooperating closely with the American Standards Association on this project, and at present are on a tour of inspection to examine the various fields in which quality control methods are applied.

This visit to the United States resulted from the adoption by the Standards Association of Australia of the three American War Standards on Quality Control as Australian Standards. The information being gathered by Mr. Moore and Mr. Stewart is being made immediately available to Australian industries in order to speed the introduction of these new techniques.

The Standards Association of Australia is doing a great deal of war work for the Australian Government. It and the American Standards Association have exceedingly close cooperative relations, as do the standardizing bodies of all the United Nations. The visit of Mr. Moore and Mr. Stewart is providing an opportunity for still closer cooperation between the SAA and the ASA.

As already announced, the American War Standards on Quality Control have also been adopted by the British Standards Institution and the Canadian Engineering Standards Association, and are being used by the industries of those countries.



Gates automatically lower as soon as traffic signal starts to operate.

Signals for Safety At Railroad–Highway Crossings

by L. C. Heilman[1]

WHEN a motorist obeys a danger signal warning of the approach of a train, he generally stops as close to the crossing as he can with safety. He then usually watches for the rear of the train and is ready to start as soon as the crossing is cleared. By doing so, if there is more than one track, he may run into serious danger, since a train may be approaching from the opposite direction, or even from the same direction, on an adjoining track. The signal may still be operating to give a warning of the danger, but that warning is frequently unnoticed, and in such a case disastrous results follow.

The new edition of the American Standard for Railroad-Highway Grade Crossing Protection (D8.1-1943)[2] takes this hazard into consideration and provides additional safety for such crossings by recommending automatically operated gates wherever railroad and highway traffic is heavy enough to warrant them. These automatically operated gates are designed to place a barrier across the highway on each side of the crossing, and to extend a sufficient distance to cover the highway lane or lanes used by traffic approaching the crossing. The gates are designed to be lowered at a predetermined interval after the signal begins to operate, and each one is provided with lights that flash in a manner similar to those on the signal. Should a highway vehicle be trapped between the gates, it may readily pass around the one encountered after passing over the railroad. It has been found that such an installation is of great value in providing additional protection at crossings where in the past a number of fatal accidents have taken place.

In some instances difficulty is experienced in finding a suitable place to locate a sign or signal where it may be placed inside the curb, and at the same time be readily visible to roadway vehicles or pedestrians. This difficulty is generally experienced where the railroad crosses streets in a city or town. To overcome it, the suspended sign and the cantilever signal are presented in the standard for the first time. The sign is designed to be held on a cable over the center of the street by means of suitable supports, at such height that it will not present a source of interference to high loads in street traffic. It was found that this method of suspension was not satisfactory or desirable for a signal for two reasons: First, it is inaccessible for necessary inspection and maintenance; and second, the weight is too great for a cable supported on the sides of the street. To overcome this difficulty, the cantilever was designed. This permits the upright member to be placed off the street, and the signal to be located at a point where it may readily be seen. Means are provided so that it may easily be reached for regular attention and care.

Increased Range Provided

A marked increase in the speed of motor vehicles traveling on the highway has been apparent. A normal speed of thirty miles an hour a short time ago, now (under peacetime conditions) is at least double that figure, and a condition is created which makes it essential that the range of the signal be greatly increased. This range may be defined as the distance at which the signal indication will be clear and distinct to a person with normal vision. Consideration must also be given to the fact that probably the most adverse condition for observing a flashing red light is with a bright sun at or near the zenith. Cooperation and investigation between manufacturers of signals and of optical glass resulted in providing a great increase in the range

[1] Secretary, Joint Committee on Grade Crossing Protection, Association of American Railroads.

[2] The revised standard, which was prepared by the Joint Committee on Grade Crossing Protection, was approved by the American Standards Association June 7. Copies of the standard are available at 10 cents each.

Gates assume "clear" position when all trains have passed.

Where this figure in the earlier edition of the standard was placed at 300 feet, the present recommendation specifies 1500 feet.

In previous editions of the standard, reflector crossing signs were provided with a black background, and the reflector lenses were set in letters consisting of a white stripe. Under certain conditions by daylight it became apparent, however, that a maximum distinction between the background and the letters was not obtained. A thorough investigation, including tests, indicated that greater definition, resulting in increased legibility, could be provided by reversing the colors; that is, by changing the background to white and placing the reflector lenses on a black stripe. Suggestions to this end had been made by the regulatory bodies of several states having jurisdiction over the subject, and the recommended change meets with general approval. Obviously, the night indication under reflected light is not altered.

Public Must Be Educated

The fundamental purpose of the American Standard for Railroad-Highway Grade Crossing Protection remains that of providing uniformity for signs and signals for protecting a crossing at grade between a railroad and a highway. That safety can be increased and hazard reduced if this is accomplished can readily be accepted. One factor that must be considered, however, is the general individual reaction when approaching a point of danger. Obviously a person lacking in mental or physical alertness, or one who is careless, cannot be expected to be influenced by any type of warning. Records for a number of years indicate that more than 30 per cent of the collisions between trains and vehicles on the highway are the result of the highway traveler driving into the side of the train. It is safe to assume that such an accident can be directly attributed to one of the conditions described earlier in this article, and it is hoped that two of the revisions previously mentioned, those covering range and automatic gates, will serve to curtail the number of accidents of this type.

A subject that is of great importance, and one that is receiving much consideration at the present time for reducing accidents due to collisions between highway vehicles and railroad trains, is the matter of educating the public. The Safety Section of the Association of American Railroads, the National Safety Council, and other organizations are much interested in this matter. This has been carried on by the use of posters and literature, and by lectures and talks in schools, assemblies, and by other convenient methods. Unquestionably much good can be accomplishetd by such effort.

The standards and practices recommended in previous editions of the American Standard have been endorsed by practically all organizations, national in character, interested in the protection of highways crossing railroads at grade. During the period when federal funds were used for this type of work, the Public Roads Administration, formerly the Bureau of Public Roads, which acted as the jurisdictional medium for the federal government, specified that all installations should be in accord with the recommendations prescribed by the Association of American Railroads.

Since the new edition of the standard was issued, one state has by formal hearing before its Public Service Commission, and by subsequent order, adopted the recommendations contained therein, and several others have the subject under consideration. The Joint Committee on Grade Crossing Protection expects that all those that have previously adopted or approved former issues will accept the standard for railroad-highway grade crossing protection in their states.

The American Standard for Railroad-Highway Grade Crossing Protection was prepared by the Joint Committee on Grade Crossing Protection of the Association of American Railroads. When this committee was organized in April, 1930, it was assigned the following duties:

1. To maintain contact with public authorities and take such action from time to time as may be considered appropriate for the purpose of informing them of standardization of equipment and practices adopted, in an endeavor to bring about uniformity of requirements of state and local authorities with respect to grade crossing protection.
2. To establish contact with other bodies or persons working on the problem of grade-crossing protection, with the object of securing uniformity in conclusions.
3. To investigate various methods of grade-crossing protection with reference to application of the best methods of protection to different classes of crossings.
4. To furnish members with information as to conclusions reached and recommendations made, and as to results obtained in securing uniformity in highway grade crossing protection.
5. To review the work having a bearing on highway grade crossing protection which has been, or is being done by other divisions, sections, or committees before publication by such division, section, or committee.

It may be noted from the above that the Joint Committee on Grade Crossing Protection, the sponsor of the revision in the standards and practices approved by the American Standards Association, is authorized by the Association of American Railroads to be the deciding

medium for the railroads in all matters relating to railroad-highway grade crossing protection. Its membership includes representatives of the Operating and Engineering branches of railroad work. The standard is known as Bulletin 3 of the Joint Committee on Grade Crossing Protection.

The earlier edition, Bulletin 2, was approved by the American Standards Association in 1937. At that time an article was published in INDUSTRIAL STANDARDIZATION (April, 1937) entitled "Control of Railroad-Highway Accidents Centers in Standard Crossing Signals." In that article it was stated, "It is self-evident that the ideal safeguard would be the elimination of crossings by the separation of the grades of the railroad and the highway. The cost of this method, however, even for the more important crossings, caused those interested in the problem to seek other solutions, and the most practical alternative seemed to be protection. . . . It soon became apparent to the railroads that the maximum protection could not be secured through the use of many different signals to present to the highway traveler the fact that a train was approaching the crossing. This same thought of uniformity caused highway and traffic engineers to develop warning and directional signs, that carried the same meaning wherever encountered, and which were used for no other purpose."

In carrying out this purpose, the standard provides detailed specifications for painted crossbuck signs, reflector crossing signs, and suspended crossing signs to be used wherever they will furnish adequate protection.

The statement which concludes the article referred to above describing the earlier edition of the standard still holds good today. This paragraph said: "It is obvious that there must be development and progress in the design of protective devices and apparatus of this type, and the Joint Committee on Grade Crossing Protection is constantly alert to discover new methods that have merit for the purpose. For this reason it is expected that the standards will be revised at intervals in order to keep pace with new ideas that may enter the field."

American Specifications To Speed Lend-Lease Production

In order to speed up production, non-standard specifications for lend-lease equipment will be revised wherever possible to conform with standard American specification, the Office of War Information announced. The Conservation Division of the War Production Board, working with the WPB industry divisions and the Office of Lend-Lease Administration, is responsible for this standardization program, for reviewing requisitions, and for recommending changes. Unless a Foreign Government can prove to the satisfaction of the Lend-Lease Administration that standard American specifications will not perform the necessary functions, its requisition for equipment or raw materials will be revised to comply with the American standard.

Recently changes have been made to call for standard American threads for nuts and bolts, which it is expected will reduce the need for carrying many off-standard inventories. The changing of metric thread to standard iron pipe specifications saves man-hours of labor otherwise required for retooling, the OWI announces. Specifications for electric loading trucks have been changed to comply with American schedules which were recently simplified by reducing models from 221 to 50. In the case of off-standard electric light bulbs replaced by our standard types, industry was relieved of the necessity of changeover which would otherwise have been required.

It is expected, OWI announces, that as the practice of changing over to American specifications becomes more widespread, the foreign purchasing commissions will call for standard American specifications in their requisitions, thereby releasing man-hours of labor, critical materials, and machine changeover time to the over-all war effort.

Bolt and Nut Manufacturers Set Up Aircraft Fasteners Division

An Aircraft Fasteners Division of the American Institute of Bolt, Nut, and Rivet Manufacturers has been set up to take care of questions in connection with standard dimensions and tolerances of aircraft fasteners, sources of supply, steels, cadmium plating, etc. The many requests for information or cooperation received by the Institute concerning these problems as they affect aircraft fasteners led to the organization of the new Division. Such requests have been received from the Interdepartmental Screw Thread Committee, Army-Navy Aeronautical Board, Wright Field, Army-Navy Air Corps, Society of Automotive Engineers, and the War Production Board, as well as from many aircraft manufacturers, the Institute announces.

A great number of the members of the Institute are now engaged in the manufacture of fasteners for aircraft.

Fiftieth Anniversary For Heating Engineers

The American Society of Heating and Ventilating Engineers will hold its Fiftieth Anniversary meeting in New York City on January 31 and February 1 and 2, 1944. The first annual meeting of the Society was held in New York in 1895.

The American Society of Heating and Ventilating Engineers has been an associate member of the American Standards Association since 1932.

Westman Writes On Post-War Standards

Harold P. Westman, now on the ASA staff working on the War Standards for Radio, is author of an article on "War and Post-War Standards", published in *Electronic Industries*, July, 1943.

Building Code Work Shows Progress Despite War Problems

by J. H. Courtney

Technical Secretary, Building Code Correlating Committee

THE work of ASA building code committees is showing encouraging progress in spite of the fact that the war demands of the last two years have interrupted committee schedules as well as rail and mail schedules. The program of the 15 committees under the supervision of the Building Code Correlating Committee contemplated the preparation of 20 standards to provide a comprehensive group of standards covering the field of the average building code. It was planned that these standards would be drawn upon for the chapters of a basic American building code. Both the standards and the basic code would then be used as a guide for the revision or development of local building regulations.

Status of Standards

Of the 20 standards, five are now in print (three new standards and two revisions); another has been approved by ASA but is not yet in print; three others have been approved by the sectional committees and are in process of submittal to ASA; three others will probably be approved by the sectional committees this year; five will run over into next year; and three appear to be stymied for the time being.

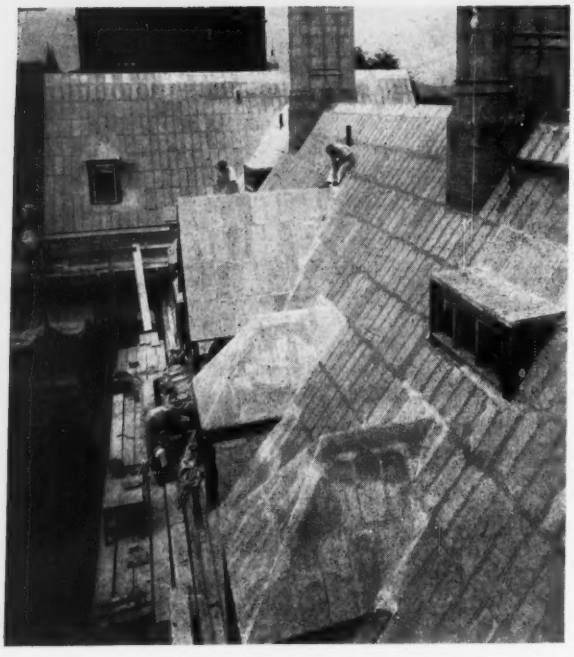
The work on building codes was undertaken by the American Standards Association in 1934, under a plan of cooperation with the National Bureau of Standards, as a continuation of the work formerly carried on by the Building Code Committee of the U. S. Department of Commerce. That able committee, which was composed of seven experts in various technical fields, had concerned itself successively with those phases of building codes that had come in for the greatest amount of public criticism and that consequently appeared to be in most urgent need of revision and standardization. The committee issued a series of reports covering recommended minimum requirements for small dwelling construction, masonry wall construction, live loads, working stresses, fire resistance in buildings, building exits, and a recommended practice for arrangement of building codes. The influence of these reports is reflected in most of the building codes of the country today. The committee was discontinued in 1934 for reasons of economy and in line with the principle that agencies outside of the government should have an opportunity to participate more directly in the work.

Following out this principle, the American Standards Association organized the work on a broad base. Responsibility for the direction and supervision of the building code work was put in the hands of a committee known as the Building Code Correlating Committee. This committee is composed of representatives of technical societies, building officials' groups, government agencies, and other organizations having a broad interest in the building code field. It serves as an advisory committee to the ASA, follows up work in progress in the technical committees, and acts as an umpire in case of conflicts between recommendations. Rudolph Miller is chairman of the committee and George Thompson is vice-chairman.

The actual development of the building code standards is in the hands of the technical committees. These are usually referred to as sectional committees because through the ASA principle of representation each is a cross-section of the groups having a substantial interest in the subject matter being dealt with. There are 15 of these committees under the supervision of the Building Code Correlating Committee. All but one of the committees operates under the administrative support and direction of one or more of the organizations principally concerned with the subject matter. Such organizations are termed administrative sponsors.

The standards themselves are written either in the form of standards of good practice, or as actual building code requirements suitable for direct incorporation in codes. The type of standard depends upon the subject matter. Thus, if the sectional committee believes

Metal-edged gypsum planks being laid without mortar —they are clipped to the supports. This type is covered in the Building Code Requirements for Reinforced Gypsum Concrete.



One of the first types of precast gypsum units—solid 3x12x30 in. roof tile—here used on a steep roof with dormers.

that considerable detail is necessary in the standard, more so than is usually deemed necessary for the average building code, the document would be regarded as a standard of good practice, or, as it is sometimes spoken of, as a reference standard. Either type of standard is suitable for adoption by reference in codes in municipalities where this is permissible.

There is no better way to explain how the standards are developed than to take an actual example and trace the path of the standard from its initiation to final approval. By this means it can be shown how the organization functions, the various steps by which the standard advances, and the care taken to make sure that the representation is adequate, that the various viewpoints are harmonized, and that the record is clear as to the consideration given to the standard. The example selected will be the approved standard on Reinforced Gypsum Concrete.

This was a clean-cut job from start to finish. Under the able chairmanship of Edward Roemer, the energetic direction of Henry Schweim as secretary, and with the cooperation of a very competent committee, the standard moved along without a hitch and was completed in exceptionally good time. It is understood that the standard has since been adopted by reference in a number of codes.

As the first step, the Building Code Correlating Committee recommended to the ASA that a project on this subject be set up, and outlined the scope of the subject. It recommended that the Building Officials' Conference of America and the Gypsum Association be made sponsors. These recommendations being approved by the ASA, and upon acceptance by the proposed sponsors, a sectional committee was organized by the sponsor organizations in cooperation with the ASA and the chairman of the Building Code Correlating Committee. The personnel of the committee was later approved by the ASA upon recommendation of the Building Code Correlating Committee.

A tentative draft of the proposed standard was prepared by a drafting committee and circulated to the full committee with a request for comments. An organization meeting was held at which officers were elected and comments on the tentative draft considered. Changes in the tentative draft that were approved at the meeting were written into a second draft. This was followed by a third draft, incorporating other approved changes and amendments, which was approved by the committee on letter ballot. The proposed standard was then submitted to the Building Code Correlating Committee which referred it to the editorial committee, and to the Advisory Committee on Working Stresses for a review of the recommended working stresses. The Advisory Committee approved the stresses but suggested that certain provisions be reconsidered in the interest of clarification. Following a letter ballot canvass of the committee on the proposed changes a fourth draft, incorporating these changes and certain editorial revisions, was circulated to the committee which voted approval by letter ballot and recommended that the proposed standard be submitted to the ASA for approval as American Standard.

The sponsor organizations endorsed this recommendation and transmitted the proposed standard to the ASA, which referred it to the Building Code Correlating Committee for recommendation. Finding that the representation of the various interests concerned was adequate and that a satisfactory consensus had been reached, the Correlating Committee recommended to the ASA that the proposed standard be approved. The recommendation of the Correlating Committee together with a record of the action of the sectional committee was considered favorably by the Standards Council of the ASA and the document was approved as an American Standard.

All Steps Necessary for Consensus

Offhand, it might appear that there was considerable "red tape" involved in the consideration given to this standard. Actually, however, all the steps taken from the time the project was initiated until it received final approval were but carrying into effect the basic principles underlying all ASA work, namely, to insure that all those who have an interest in the proposed standard are given their day in court, that full consideration is given to all objections and suggestions, and that the completed standard is supported by a majority so substantial that a consensus is established. Such a procedure takes time, the amount of time depending to some extent on the number of divergent views that must be reconciled but more so on the amount of attention that can be given to the work by the officers and committee members. The time spent on the standards is justified, however, by the results obtained. Certainly standards developed upon as broad a base as these are, representing a consensus of interests, not of the enforcing officials alone, but of the material interests, builders, designers, owners, research men, government agencies, and general interests, cannot fail to command respect and to contribute to the improvement of codes in general.

In addition to the standards developed under the supervision of the Building Code Correlating Committee, the ASA has approved a number of standard closely related to building regulations. Included in these are

the Safety Code for Elevators, Dumbwaiters, and Escalators; the National Electrical Code; some 30-odd standards for gas-burning appliances; standards for safety in the construction industry; a standard for plastering; and a number of standards for quality of materials. Work on a standard plumbing code is also under way.

This group of standards, together with the building code standards already approved and those that will be available this year, provide a respectable nucleus for the preparation of a basic code, plans for which are now in the discussion stage. In the meantime, the approved standards, and drafts of proposed standards which have had sufficient consideration to warrant saying that they represent the final conclusions of the committee, are available to those engaged in writing or revising codes. Requests for these drafts should be addressed to the American Standards Association.

Status of ASA Work on Building Code Standards

New Building Code Standards Approved and in Print—

Methods of Tests of Door Assemblies (A2.2-1942)
Portable Steel and Wood Grandstands (Z20.1-1941)
Building Requirements for Reinforced Gypsum Concrete (A50.1-1941)

Revised Standards Approved and in Print—

Fire Tests of Building Construction and Materials (A2.1-1941)
Building Exits Code (A9.1-1942)

New Standard Recently Approved—

Building Code Requirements for Structural Steel (A57.1-1943)

Proposed Standards Approved by Sectional Committees, Now Being Submitted to ASA—

Building Code Requirements for Masonry (A41)
Administrative Requirements for Building Codes (A55)
Building Code Requirements for Steel Joist Construction (A57)

In Final Stage of Development in Sectional Committees—

Building Code Requirements for Light and Ventilation (A53)
Building Code Requirements for Excavations and Foundations (A53)
Building Code Requirements for Signs and Outdoor Display Structures (A60)
Building Code Requirements for Minimum Design Loads in Buildings (A58)

Active Work Recently Started—

Building Code Requirements for Fire Protection and Fire Resistance (A51)
Building Code Requirements for Chimneys and Heating Appliances (A52)

Committee Work to Be Started This Summer—

Light Gage Steel Construction
Reinforced Brick Masonry
Building Code Requirements for Cast Iron (A57)

In addition, some preliminary work has been done on two other projects but the sponsors report that war work has occupied the attention of their staffs to such an extent that they are unable to do any work on the projects at the present time. These are the committees on Building Code Requirements for Fire Extinguishing Equipment (A54), and Building Code Requirements for Wood (A61).

New ASA Company Members

The following thirty-three companies have become Company Members of the American Standards Association during the past month:

American Machine & Metals, Inc, East Moline, Illinois.
Axelson Manufacturing Company, Los Angeles, California
Cameron Iron Works, Inc, Houston, Texas
Columbus Bolt Works Company, Columbus, Ohio
Engineering Metal Products Corporation, Indianapolis, Indiana
E. W. Ferry Screw Products, Inc, Cleveland, Ohio
Goddard & Goddard Company, Inc, Detroit, Michigan
Greenfield Tap & Die Corporation, Greenfield, Massachusetts
J. W. Greer Company, Cambridge, Massachusetts
Harvey Machine Company, Los Angeles, California
Hunter Engineering Company, Riverside, California
International Machine Tool Corporation, Elkhart, Indiana
E. F. Johnson Company, Waseca, Minnesota
Leslie Company, Lyndhurst, New Jersey
Lewis Bolt & Nut Company, Minneapolis, Minnesota
Martindale Electric Company, Cleveland, Ohio
Micro Switch Corporation, Freeport, Illinois
National Company, Inc, Malden, Massachusetts
National Screw & Manufacturing Company, Cleveland, Ohio
W. H. Nichols & Sons, Waltham, Massachusetts
Pako Corporation, Minneapolis, Minnesota
Pan American Refining Corporation, New York, N. Y.
Henry L. Scott Company, Providence, Rhode Island
Security Engineering Company, Inc, Whittier, California
Severance Tool Industries, Inc, Saginaw, Michigan
Sommer & Adams Company, Cleveland, Ohio
Standard Screw Company, Chicago, Illinois
Stevenson, Jordan & Harrison, Inc, New York, N. Y.
Universal Motor Company, Oshkosh, Wisconsin
Waldes Koh-I-Noor, Long Island City, N. Y.
Warner & Swasey Company, Cleveland, Ohio
Wollensak Optical Company, Rochester, New York
Wolverine Brass Works, Grand Rapids, Michigan

New Committee on Piping Code

A subcommittee to answer questions concerning the scope, meaning and use of the Code for Pressure Piping (B31.1-1942) in a systematic manner has been appointed by E. B. Ricketts, chairman of the ASA Sectional Committee which prepared the Code. Members of the subcommittee are:

Sabin Crocker, Detroit Edison Company, Member-at-Large on Committee B31, *Chairman*
L. D. Burritt, American Petroleum Institute
C. S. Cole, Specifications Section, Conservation Division, War Production Board
Alfred Iddles, American Society of Mechanical Engineers
C. A. Kelting, Consolidated Edison Company of N. Y., Member-at-Large, Committee B31
F. H. Morehead, Manufacturers Standardization Society of the Valve and Fittings Industry
J. Howard Williams, National Automatic Sprinkler Association

Inquiries about the Code for Pressure Piping may be addressed to the subcommittee through the American Society of Mechanical Engineers, sponsor for project B31, or through the American Standards Association.

Standards Issued by Associations and Government

(See "ASA Standards Activities", page 222, for new American Standards and progress on ASA projects)

For the information of ASA Members, the American Standards Association gives here a list of the standards received during the past month by the ASA Library for its classified files. With the increasing amount of material being received it has been decided to eliminate from the monthly list a few of those standards which may not be so important to ASA Members, such as Federal Specifications for foods. The list below, therefore, includes only those standards which the American Standards Association believes will be of greatest interest to Members in connection with their war production.

The standards listed may be consulted by ASA Members at the ASA Library, or copies may be obtained from the organization issuing the standard. Addresses of these organizations are given for your convenience.

Associations and Technical Societies

American Petroleum Institute (Department of Accident Prevention, 50 West 50 Street, New York, N. Y.)

Loading Tank Cars (Gasoline) API Manual No. 12 1st ed May, 1943 25¢

General Motors Corporation (R. L. McWilliams, Room 8-133A, General Motors Building, Detroit, Michigan).

Cross-Index of Chemically Equivalent Specifications and Identification Code (Prepared at the request of the U.S. Armed Services)

National Aircraft Standards Committee (Aeronautical Chamber of Commerce of America, 610 Shoreham Building, Washington, D. C.).

Screws, Brazier Head, Phillips Recess NAS 222 through NAS 227 Revised May 4, 1943

Underwriters' Laboratories, Inc. (161 Sixth Avenue, New York, N. Y.).

Rubber-Covered Wires and Cables (paragraphs A91-A128 replace 91-128 of the June, 1940 edition of this standard) May, 1943

U. S. Government

(Wherever a price is indicated, that publication may be secured from the Superintendent of Documents, Government Printing Office, Washington, D. C. Otherwise copies of the document may be obtained from the governmental agency concerned.)

National Bureau of Standards (Washington, D. C.).

Commercial Standards

Commercial Electric-Refrigeration Condensing Units CS(E) 107-43 May 15, 1943 10¢

Mineral Wool; Loose, Granulated, or Felted Form, in Low-Temperature Installations CS105-43 March 1, 1943 5¢

Federal Specifications Executive Committee (U. S. Treasury Department, Washington, D. C.)

Federal Specifications

(Copies available from Superintendent of Documents, Government Printing Office, Washington, D. C.)

The date after the title of the specification indicates when it becomes effective.

Acid, Nitric; technical grades (new) O-A-88 July 15, 1943

Acid, Oxalic; technical (amendment 1) O-A-91 June 15, 1943

Adzes (amendment 1) GGG-A-151a June 1, 1943

Aluminum-Alloy (AL-17) (Aluminum-Copper-Magnesium-Manganese); bars, rods, shapes, and wire (superseding QQ-A-351a) QQ-A-351b June 1, 1943

Aluminum-Alloy (AL-24) (Aluminum-Copper-Magnesium [1.50%]-Manganese); bars, rods, shapes, and wire (superseding QQ-A-354) QQ-A-354a June 1, 1943

Ammonia, Aqua (Ammonium-Hydroxide), Technical (amendment 2) O-A-451 July 15, 1943

Awls (amendment 1) GGG-A-891 July 15, 1943

Federal Specifications (Continued)

Bars; chisel, crow, pinch, and wrecking (amendment 2) GGG-B-101 June 15, 1943

Boards; drawing (new) GG-B-546 July 1, 1943

Bronze; ingots (amendment 1) QQ-B-701 June 15, 1943

Cable and Wire; varnished-cloth insulated (0 to 5000-volt service) (new) J-C-138 June 15, 1943

Cards:

guide, calendered (file size) (superseding amendment 1 and E-UU-C-86, 1/1/43) (amendment 2) UU-C-86 July 1, 1943

guide (card-size) (amendment 4) UU-C-76 July 1, 1943 (superseding amendment 3 and E-UU-C-76, 12/23/42)

tabulating (amendment 1) G-C-116 June 1, 1943

Chinaware; vitrified (superseding M-C-301) M-C-301a July 1, 1943

Cloths, Wiping; cotton, mixed-colored and white, sterilized (for machinery) (amendment 1) DDD-C-503a July 15, 1943

Detergent, Hand; paste and powder for mechanics' use (amendment 1) P-D-221 June 15, 1943

Detergents, Special; for aluminum-ware, dishwashing-machines, and manual cleaning (amendment 2) P-D-236 June 15, 1943

Forks; hay and manure (amendment 1) GGG-F-601 June 15, 1943

Hatchets (amendment 4) GGG-H-131 July 15, 1943

Insulation; bat or strip-form and loose-fill (amendment 3) HH-I-521b July 1, 1943

Insulation (Redwood-Bark, Shredded) (new) LLL-I-533 July 1, 1943

Knives; linoleum, plumbers'-chipping, putty, scraping, and shoe (amendment 3) GGG-K-481 July 1, 1943

Lamps; electric, incandescent, large, tungsten-filament 1943 supplement (amendment 1) W-L-101e July 1, 1943

Linoleum; desk-top (new) LLL-L-354 June 15, 1943

Federal Specifications (Continued)

Machines, Dishwashing; and dish baskets (amendment 1) OO-M-31b July 15, 1943

Paint; concrete and masonry, exterior, eggshell-finish, ready-mixed, white and tints (amendment 1) TT-P-24 June 15, 1943

Panelboards; equipped with automatic circuit-breakers (amendment 1) W-P-131a June 1, 1943

Paper:
- Kraft, wrapping; waterproofed (superseding UU-P-271, 9/30/36, and E-UU-P-271, 11/20/42) UU-P-271a July 15, 1943
- ledger (superseding amendment 4 and E-UU-P-288, 1/1/43) (amendment 5) UU-P-288 July 1, 1943
- legal-cap, ruled (superseding amendment 1 and E-UU-P-301, 12/23/42) (amendment 2) UU-P-301 July 1, 1943
- manifold (superseding amendment 5 and E-UU-P-328a, 12/23/42) (amendment 6) UU-P-328a July 1, 1943
- writing (superseding amendment 4 and E-UU-P-641, 12/23/41) (amendment 5) UU-P-641 July 1, 1943

Pipe; steel and ferrous-alloy, wrought, iron-pipe-size (amendment 2) WW-P-403a June 15, 1943

Powder; scouring for highly polished glass (amendment 1) P-P-596a June 1, 1943

Rakes; hand (amendment 1) GGG-R-96 June 15, 1943

Shovels (scoops, spades, and spoons) (amendment 1) GGG-S-326 June 15, 1943

Soap:
- chip (amendment 1) P-S-566a June 1, 1943
- grit; cake (amendment 1) P-S-571a June 1, 1943
- grit; hand (amendment 1) P-S-576 June 1, 1943
- laundry; chip, rosin-type (amendment 1) P-S-581 June 15, 1943
- laundry; granulated, rosin-type (amendment 1) P-S-583 June 1, 1943
- laundry; powdered (amendment 1) P-S-596a June 1, 1943
- laundry; ordinary bar (amendment 1) P-S-591a June 15, 1943
- liquid and paste; for automobile, floor and general cleaning (amendment 2) P-S-598 June 15, 1943
- salt-water (amendment 2) P-S-611a June 15, 1943
- toilet; floating, white (amendment 1) P-S-616a June 15, 1943
- toilet; milled (amendment 1) P-S-621a June 15, 1943
- toilet; powder for dispensers (amendment 1) P-S-626a June 15, 1943

Sponges; cellulose-type (amendment 1) I-S-626 June 1, 1943

Steel, Structural (Including Welding) and Rivet; for bridges and buildings (amendment 1) QQ-S-741 July 1, 1943

Tools; blacksmiths' and horseshoers' (amendment 2) GGG-T-561 June 1, 1943

Emergency Alternate Federal Specifications

(Prepared in collaboration with the War Production Board)

Aluminum:
- bars, rods, shapes, and wire E-QQ-A-411a
- plates and sheets E-QQ-A-561

Aluminum-Alloy:
- (AL-52) (aluminum-magnesium-chromium); plates, sheets, and strips E-QQ-A-318
- (AL-61) (aluminum-magnesium-silicon); plates, sheets, and strips E-QQ-A-327
- (AL-53) (aluminum - magnesium - silicon - chromium); bars, rods, shapes, and wire E-QQ-A-331a
- aluminum-chromium-magnesium-silicon; plates and sheets E-QQ-A-334
- (AL-17) (aluminum-copper-magnesium-manganese); plates, sheets, and strips E-QQ-A-353a
- (AL-24) (aluminum-copper-magnesium [1.5%]-manganese); bars, rods, shapes, and wire E-QQ-A-354
- (AL-24) (aluminum-copper-magnesium [1.5%]-manganese) plates, sheets, and strips E-QQ-A-355a
- aluminum-manganese; bars, rods, shapes, and wire E-QQ-A-356a
- aluminum-manganese; plates and sheets E-QQ-A-359a

Aluminum-Base-Alloy; permanent-mold-castings E-QQ-A-596

Tubing, Aluminum-Alloy:
- (AL-2); round, seamless E-WW-T-783a
- (AL-17); (aluminum-copper-magnesium-manganese) round, seamless E-WW-T-786a
- (AL-52) (aluminum-magnesium-chromium); round, seamless E-WW-T-790

Chrome, green:
- oxide E-TT-C-231
- pure, dry, paste-in-japan, paste-in-oil E-TT-C-236

Chrome-Yellow and Chrome-Orange; dry, paste-in-japan, paste-in-oil E-TT-C-291a

Cloths; wiping, cotton, mixed-colored and white, sterilized for machinery E-DDD-C-503

U. S. Department of Labor (Bureau of Labor Statistics, Washington, D. C.)

Shipyard Injuries and Their Causes, 1941 No. 722 10¢

U. S. Public Health Service (Washington, D. C.).

Drinking Water Standards and Manual of Recommended Water Sanitation Practice September 25, 1942 (supersedes standards adopted June 20, 1925) 10¢

War Production Board (Washington, D. C.).

General Storage Specifications for Critical and Strategic Materials April, 1943

Technical Librarians Hear About Standards

"INDUSTRIAL Standardization during and after the War" was the subject of an address by John Gaillard, Mechanical Engineer of the American Standards Association, before the Science-Technology Group of the Special Libraries Association. The Association held its annual meeting in New York June 22-24. Dr. Gaillard told the librarians that "industrial standardization has played an increasingly important role in the war effort, because of the necessity of coordinating innumerable individual efforts into a national plan." "For example," he said, "one large automobile manufacturer now making war equipment has more than 8,000 subcontractors, whose products must all be coordinated with each other as well as with the work of the prime contractor."

With a view to the post-war period, Dr. Gaillard declared that there probably would be as much or more need for industrial standardization in reconstructing the badly battered world as there has been in the pre-war development of industry. The International Standards Association, founded in 1926, has become inactive under the present war conditions, but it is to be expected that a revival of its work will be helpful in the post-war period, he explained.

"There is a similarity in purpose in the work of the Special Libraries Association and the American Standards Association in that the librarians try to foster the organization of company libraries while the ASA is trying to promote the organization of Standards Departments in companies," Dr. Gaillard said. "A company Standards Department and a company Library could work together most effectively in making available to the company the data required for its standardization work. Such data would include American Standards approved by the American Standards Association and standards adopted by many other organizations such as technical societies, trade associations, and individual companies."

ASA Standards Activities

Standard Available Since Our June Issue

Railway Highway Grade Crossing Protection American Standard D8.1-1943 10¢

Standards Approved Since Our June Issue

Building Code Requirements for Structural Steel (Riveted, Bolted, or Welded Construction) American Standard A57.1-1943

Photography
- Dimensions of Photographic Papers—Inch Width Rolls American Standard Z38.1.5-1943
- Dimensions of Photographic Papers—Centimeter Size Sheets and Rolls American Standard Z38.1.6-1943
- Dimensions of Amateur Roll Film and Backing Paper American Standard No. 1, Z38.1.7-1943 to No. 9, Z38.1.15-1943 (nine standards)
- Dimensions of Amateur Roll Film Spools American Standard No. 1, Z38.1.16-1943 to No. 9, Z38.1.24-1943 (nine standards)
- Method of Determining Photographic Speed and Speed Number American Standard Z38.2.1-1943
- Definition of Safety Photographic Film American Standard Z38.3.1-1943
- Lens Aperture Markings American Standard Z38.4.7-1943
- Picture Sizes for Roll Film Cameras American Standard Z38.4.8-1943
- Testing, Printing and Projection Equipment American Standard Z38.7.5-1943

Zinc Coating of Iron and Steel
- Black and Hot-Dipped Zinc-Coated (Galvanized) Welded and Seamless Steel Pipe for Ordinary Uses (ASTM A120-42) American Standard G8.7-1943
- Zinc-Coated Steel Wire Strand ("Galvanized" and Class A ["Extra Galvanized"]) (ASTM A122-41) American Standard G8.6-1943

Standards Being Considered by ASA for Approval

Apparatus Bushings C76.1

Basic Sulfate White Lead, Tentative Specifications for (ASTM D82-42T) Revisions of American Standard K7-1941

Chemical Analysis of Alloys of Lead, Tin, Antimony and Copper (ASTM B18-36T) Revision of K5-1922

Chrome Yellow and Chrome Orange, Tentative Specifications for (ASTM D211-42T) Revision of American Standard K27-1941

Copper-Base Alloy Forging Rods, Bars, and Shapes, Tentative Specifications for (ASTM B124) Revision of American Tentative Standard H7-1939

Electrical Insulating Materials
Methods of Testing
- Sheet and Plate Materials Used in Electrical Insulation (ASTM D229-42) C59.13
- Laminated Tubes Used in Electrical Insulation (ASTM D348-42) C59.14
- Laminated Round Rods Used in Electrical Insulation (ASTM D349-42) C59.15
- Molded Materials Used for Electrical Insulation (ASTM D48-42T) C59-1
- Impact Resistance of Plastics and Electrical Insulating Materials (ASTM D256-41T) C59.11

Wet Tests C77.1

Standards Submitted for Consideration Since Our June Issue

Machine Tapers Self-Holding and Steep Taper Series Revision of B5.10-1937

Pre-Timed, Fixed Cycle, Traffic Signal Controllers

American War Standards

Standards Approved and Published

Accuracy of Engine Lathes B5.16-1941 25¢

Allowable Concentration of Cadmium Z37.5-1941 20¢

Allowable Concentration of Manganese Z37.6-1942 20¢

Code for Electricity Meters (Revision of Paragraph 827) C12WS-1942 10¢

Color, Specification and Description of Z44-1942 25¢

Components for Military Radio
- Ceramic Radio Insulating Materials, Class L C75.1-1943 20¢
- Ceramic Radio Dielectric Materials, Class H C75.4-1943 20¢
- Electrical Indicating Instruments (2½- and 3½-Inch, Round, Flush-Mounting, Panel-Type) C39.2-1942 50¢
- Fixed Mica-Dielectric Capacitors C75.3-1943 50¢

Domestic Gas Ranges, Approval Requirements Z21.1ES-1942 $1.00

Gas Water Heaters, Approval Requirements Z21.10WS-1942 $1.00

Machine Tool Electrical Standards C74-1942 40¢

Photographic Exposure Computer Z38.2-1942 $1.00

Pressure Ratings for Cast-Iron Pipe Flanges and Flanged Fittings, Class 125 B16a1-1943 10¢

Pressure-Temperature Ratings for Steel Pipe Flanges, Flanged Fittings and Valves (Revision of Tables 6 to 11 inclusive, American Standard B16e-1939) B16e-1943 25¢

Protective Lighting for Industrial Properties A85-1942 50¢

Protective Occupational Footwear
- Men's Safety-Toe Shoes Z41.1-1943
- Men's Conductive Shoes Z41.3-1943, 2nd Edition
- Men's Explosive-Operations (Non-Sparking) Shoes Z41-1943
- Men's Electrical-Hazards Shoes Z41.5-1943, 2nd Edition
- Men's Foundry (Molders) Shoes Z41.6-1943, 2nd Edition

(In one Volume 40¢)

- Women's Safety-Toe (Oxford) Shoes Z41.2-1943, 2nd Edition 25¢

Standards Approved and Published (Continued)

Quality Control
- Guide for Quality Control Z1.1-1941
- Control Chart Method of Analyzing Data Z1.2-1941

(In one Volume 75¢)

- Control Chart Method of Controlling Quality During Production Z1.3-1942 75¢

Replacement Parts for Civilian Radio
- Dry Electrolytic Capacitors (Home Receiver Replacement Type) C16.7-1943 20¢
- Fixed Paper-Dielectric Capacitors (Home Receiver Replacement Type) C16.6-1943 20¢
- Home Radio Replacement Parts, Simplified List C16.8-1943 20¢
- Power and Audio Transformers and Reactors (Home Receiver Replacement Type) C16.9-1943 25¢

Straight Screw Threads for High-Temperature Bolting B1.4-1942 25¢

Standards Available Since Our June Issue

Components for Military Radio
- External Meter Resistors (Ferrule Terminal Styles) C75.5-1943 25¢
- Shock-Testing Mechanism for Electrical Indicating Instruments (2½- and 3½-Inch Round, Flush-Mounting, Panel-Type) C39.3-1943 25¢

Protective Occupational Footwear
- Women's Safety-Toe (High) Shoes Z41.7-1943
- Women's Explosives-Operations (Non-Sparking) Shoes Z41.8-1943
- Women's Conductive Shoes Z41.9-1943
- Women's Safety-Toe (Oxford) Shoes Z41.2-1943 (2nd Edition)

(In one Volume 40¢)

Standards Approved Since Our June Issue

Allowable Concentration of Metallic Arsenic and Arsenic Trioxide Z37.9-1943
Components for Military Radio
  Glass-Bonded Mica Radio Insulators C75.6-1943
  Steatite Radio Insulators C75.2-1943

Standards Under Way

Allowable Concentrations of Toxic Dusts and Gases Z37
  Xylene
Color Code for Lubricants for Machinery Z47
Components for Military Radio C75
  Capacitors
    Fixed Ceramic-Dielectric Capacitors C75/320*
    Fixed Molded Paper-Dielectric Capacitors C75/221*
    Paper-Dielectric Capacitors
  Crystals
    Crystal Unit CR1()AR
    Reference Test Set
  Insulating Materials
    Glass Radio Insulators C75/275*
    Laminated Thermosetting Plastic Materials (Sheet and Plate)
    Porcelain Radio Insulators
    Thermoplastic Molded Materials
    Thermosetting Plastic Materials

* Printed draft is available.

Components for Military Radio (Continued)
  Resistors
    Composition Potentiometers and Rheostats
    Fixed Composition Resistors
    Fixed Wire-Wound Resistors (Power Type)
    High Stability Fixed Wire-Wound Resistors (Bobbin or Spool Styles)
    Low-Power Variable Wire-Wound
    Wire-Wound Potentiometers and Rheostats
  Vibrators
Cylindrical Fits B4
Goggles and Respiratory Equipment, Standardization and Simplification of Z2
Packages for Electronic Tubes Z45
Replacement Parts for Civilian Radio C16
  Volume Controls (Home Receiver Replacement Type)
Screw Threads B1
  Acme Screw Threads for Aircraft
  Threading of General Purpose Nuts and Bolts
  Truncated Whitworth Screw Threads
Sizes of Children's Garments and Patterns L11
Welding Arc Hand Shield and Helmets Z2
Women's Industrial Clothes and Safety Clothes L17

New Project Approved

Safety in Electric and Gas Welding and Cutting Operations

News About ASA Standards Projects

Allowable Concentrations of Toxic Dusts and Gases Z37

Formaldehyde—The final draft is out for comment and criticism.

Lead and Certain of Its Compounds—The final draft has been approved by the Sectional Committee.

Oxides of Nitrogen—The final draft is before the Sectional Committee.

Toluene—The final draft is before the Sectional Committee.

Bakery Equipment

The Safety Code Correlating Committee has signified its approval that a project for a Safety Code for Bakery Equipment be established. A recommendation to this effect is going to the Standards Council.

Safety Code Correlating Committee

A meeting of this committee will be held on July 29th to elect new officers and to review the status of various projects.

Standard Measurements Proposed For Women's Slips

A resolution favoring a proposed commercial standard for women's slips was adopted at a conference of the industry held under the auspices of the National Bureau of Standards July 1. The standards are intended to provide uniform methods of measuring as well as standard measurements, and are being developed by the National Bureau of Standards in cooperation with the National Women's Undergarment Manufacturers Association. Early this year the Office of Price Administration asked the Division of Trade Standards to establish minimum specifications for slips "to avoid circumvention of price ceilings through reduction of quality or dimensions of garments." In carrying out the request the National Bureau of Standards called upon the National Women's Undergarment Manufacturers Association to appoint a committee to cooperate in drafting proposed specifications and standard dimensions.

Preliminary work on the proposed standard had been completed early in February and since that time the National Bureau of Standards has been checking the proposed standard through its own channels, it was explained. At the industry conference June 30, all of the measurement tables were accepted although the tolerances listed were eliminated and the measurements were defined as "minimum" measurements. In instances where minus tolerances were allowed, the amount was deducted from the original figures. The provision covering accuracy was changed to provide that measurements are to be taken to the nearest quarter-inch rather than one-eighth of an inch.

Milton N. Mound, general counsel of the undergarment manufacturers organization, told the meeting that after the standards are finally approved a manufacturer who uses them may attach the officially approved label to his product by which the consumer will be enabled to know exactly what she is getting. Misuse of such labels is subject to Federal penalties, he said.

The conference decided to postpone further action on the standards until after October 15 to give everybody in the industry an opportunity to study the proposed measurements.

Ernest Reappointed as Standards Council Member

E. W. Ernest has been reappointed for a three-year term as the representative of the American Society of Tool Engineers on the ASA Standards Council. Mr. Ernest's second term began as of January 1, 1943.

E. E. Griffiths, Director of Time Study and Method Department, Westinghouse Electric & Manufacturing Company has been designated as an alternate representative on the Council, to act for Mr. Ernest.

Courtesy North American Aviation Co.

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Men's Foundry (Molders) Shoes (Z41.6-1943) (2nd Edition)

In another volume:

Women's Safety-Toe (Oxford) Shoes (Z41.2-1943) (2nd Edition)
Women's Safety-Toe (High) Shoes (Z41.7-1943)
Women's Explosives-Operations (Non-Sparking) Shoes (Z41.8-1943)
Women's Conductive Shoes (Z41.9-1943)

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